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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/088,656	06/13/2002	Carsten Woerner	1999/G-020	2826
7590	04/13/2004		EXAMINER	
Connolly Bove Lodge & Hutz P O Box 2207 Wilmington, DE 19899-2207			WYROZEBSKI LEE, KATARZYNA I	
			ART UNIT	PAPER NUMBER
			1714	
DATE MAILED: 04/13/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/088,656	WOERNER ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Katarzyna Wyrozebski Lee	1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 March 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 11-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                                               |                                                                                         |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                                   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                                          | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>3/7/2002</u> . | 6) <input type="checkbox"/> Other: _____                                                |

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

2. Claims 11-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Present claim appear to claim a polyoxymethylene polymer whereas the body of the claims discloses components of the composition. For more prompt prosecution of the application the examiner will treat the claims as composition claims. Appropriate correction is required.

Claim 25 is further viewed as indefinite for its use of term “white goods sector”, especially when articles such as paper are also white.

The examiner also would like to point out to the applicants that claim 19 is in product by process claim. According to *In re Thorpe*, 777 F.2d 695, 698 227 USPQ 964, 966 (Fed. Cir. 1985), in such claims determination of patentability is based on the product itself and not on its methods of production, absent showing of criticality of the process steps (See MPEP 2113).

In addition claim 24 contains a recitation of the intended use of the claimed invention. The composition must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior

Art Unit: 1714

art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

### ***Double Patenting***

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 11-15, 17, 19-22, 24-26 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-9 of U.S. Patent No. 6,489,388. Although the conflicting claims are not identical, they are not patentably distinct from each other because the following explanation.

Art Unit: 1714

Claims of already patented rejection require composition comprising 30-99.8 wt% of polyoxymethylene polymer, 0.1-10 wt % of polyalkylene glycol, 0.1-10 wt % of zinc oxide, 0-50 wt % of fillers that include stabilizers, light stabilizers and the like.

Other claims further narrow down the limitations of the claims with respect to the amounts of the components, wherein the amount of stabilizers is limited to 0.1-50wt %.

Claims of '388 also disclose method of making molding article by mixing components A-D and molding it.

Although claims of '388 do not specifically disclose that the light stabilizers are containing nitrogen, it should be pointed out that one of the most known stabilizer groups are HALS, which stands for hindered amine light stabilizers.

In the light of the above disclosure it would have been obvious to one having ordinary skill in the art to utilize HALS in the present invention and thereby obtain the claimed invention in '388.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 11-26 are rejected under 35 U.S.C. 102(e) as being anticipated by KURZ (US 6,489,388)

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

The prior art of KURZ discloses composition comprising polyoxymethylene in amount of 80-99.8 wt %, polyalkylene glycol in amount of 0.1-10 wt %, zinc oxide in amount of 0.1-10 wt % (Abstract) and stabilizers that are either phenolic or amine containing stabilizers (col. 2, lines 54-56) and are utilized in amount of 0.1-5 wt %.

Polyoxymethylene is made from formaldehyde and trioxane (col 2, lines 7-9). Stabilizers include also urea, hydrazine, amine containing compounds and the like (col. 2, lines 45-56). Glycol component of KURZ is selected from polyethylene glycols and polypropylene glycols (col. 2, lines 32-34).

In the process of KURTZ the components of the composition are mixed and melt process to make a molded article (col. 3, lines 6-15).

In the light of the above disclosure the prior art of KURTZ anticipates requirements of claims rejected above.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Art Unit: 1714

10. Claims 1-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over HORIO (US 6,147,146) in view of TAKAYAMA (US 6,284,828).

The prior art of HORIO discloses composition comprising oxymethylene polymer, hindered phenol, LDPE, salt of fatty acid, amine compound and fillers such as zinc oxide. The amount of the components are based on the weight of the polyoxymethylene copolymer.

The polyoxymethylene is formed from monomers of formaldehyde and trioxane (col. 6, lines 57-62).

Component E, which is component reactive with formaldehyde is a nitrogen-containing compound such as triazine, melamine, various amino-compounds, amides and the like (col. 11, lines 37-65). The amine compounds are utilized in amount of 0-2 wt % (col. 5, lines 38-40). The prior art of HORIO also discloses use of HALS, which are hindered amines (col. 13, lines 15-55) that can also be used in amount of 0.01-30wt %.

Polyhydric alcohols, such as polyethylene glycol and polypropylene glycol are utilized as lubricants. In the examples these compounds are utilized in amount of 0.5 wt % relative to the weight of POM.

The prior art of HORIO also teaches use of inorganic fillers such as zinc oxide (col. 17, lines 42-45). Since zinc oxide acts as white pigments making "white goods" will be an intrinsic result.

In the process the components are mixed and melt processed using extruders to form molded articles (col. 17, lines 54-67).

The difference between the present invention and the disclosure of HORIO is the amount of zinc oxide.



With respect to the above difference, the prior art of TAKAYAMA discloses composition comprising polyacetal resin in mixture with olefinic resin, glycol and inorganic compounds such as zinc oxide (col. 5, line 10). The polyacetal resin of TAKAYAMA is also a polyoxymethylene.

According to the disclosure of TAKAYAMA, conventional amount of zinc oxide is 0.1-20wt % (Abstract).

Use of the inorganic filler such as zinc oxide has in addition to imparting a white color to the composition also property that would increase sliding efficiency or smoothness of the formed article.

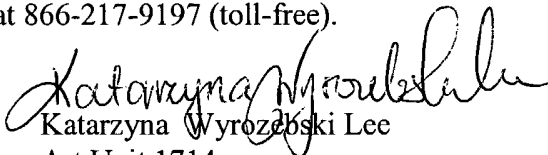
In the light of the above disclosure, it would have been obvious to one having ordinary skill in the art at the time of the instant invention to utilize zinc oxide of HORIO in amounts disclosed by TAKAYAMA and thereby obtain the claimed invention. Use of zinc oxide in about amounts would provide white color to the article and increase smoothness or sliding capability.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katarzyna Wyrozebski Lee whose telephone number is (571) 272-1127. The examiner can normally be reached on Mon-Thurs 6:30 AM-4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1714

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Katarzyna Wyrozowski Lee  
Art Unit 1714

kiwl  
April 6, 2004